

✘ Energy Sector Serbia

We have an excellent cooperation with EPS and TENT on all levels. We are very glad, that they are all professional business partners with excellent technical background. New energy projects in Serbia will also be beneficial for our local partners, especially as according to our experience there also exists a very good technical background. The energy sector in Serbia has made good progress in upgrading its assets and we expect further projects for improving efficiency and emissions in the Serbian Power Plants.



Dr. Matthias Jochem, Senior Vice President, Head of Sales & Proposals dept. at Hitachi Power Europe

**Serbia-energy.com:** HPE is one of leading Power Generation companies that entered Serbian market and influenced the modernization of Electric power of Serbia facilities in best manner, can you tell us more about the market entrance project and overview of what are your impressions on serbian energy market?

**HPE:** HPE for the Serbian market is utilizing its vast experience in lignite technology. Related first activities in Serbia have started in 2003, which finally resulted in a contract for upgrading of two mills in 2005. In those so called pilot mills, HPE implemented engineering driven solutions to improve the grinding process, similar to ones already utilized in Germany. Related moderate modifications of the mills have been resulting in remarkable performance increase. Similar technological solution is applied in the KFW financed contract, which we signed in Nov 2009 for "Upgrading of DGS mills - Nikola Tesla Thermal Power Plant A unit A3 -A5", whereas unit 5 also will be equipped with Low NOx combustion technology.

We know that EPS has further Investment plans for environmental friendly energy production. For this HPE/Hitachi together with local partners has the right technology and set up for power plant rehabilitation, flue gas desulphurization as well as for complete new units. For HPE, Serbia is clearly a target market and we see a lot of activities starting in the near future.

**Serbia-energy.com:** What specific areas of your know how and technology are implemented in Serbian Energy Sector, what did HPE brought new to Serbia and region of Balkans?

**HPE:** As already described above HPE contributes with its know-how about lignite technology, where we have developed a new kind of lignite burner, the so called RS®- Burner, which is our patented round swirl type burner with excellent combustion performance in regard of stable and efficient low NOx combustion. By implementing those burners, future required European emission limits of 200mg/Nm<sup>3</sup> can be achieved in the existing units, any secondary measure for NOx reduction (SNCR by uera injection or SCR by

ammonia injection) can be avoided.

By the way, this burner has been implemented for the first time in Slovenia in the Nineties.

**Serbia-energy.com:** In all projects in Serbia, you had stakeholders and clients from our circle and company Electric power of Serbia (EPS), what are your experiences in cooperation with EPS and specially with TENT power plants representative which is the biggest part of EPS? Can you tell us more about the realized projects on Power Plants Nikola Tesla, your experiences and your plans?

**HPE:** We have an excellent cooperation with EPS and TENT on all levels. We are very glad, that they are all professional business partners with excellent technical background.

The ongoing project is running quite smooth, for unit 3 and unit 4 we could reduce the outage time. Presently we fully are under preparation for the next outage in unit 5, which includes the low NOx rehabilitation in 2012. So hopefully we are successful there - where we have no doubts - we see, besides mill rehabilitations also a good potential for further implementation of our RS®-Burner, not only in TENT A but also in other power plants in that region.

**Serbia-energy.com:** What are your general experiences with local subcontracting companies? Is Serbian metal industry sector competitive enough to work with one of the leading Power Gen companies from Europe and world, what would be your recommendations on improvement of that business environment?

**HPE:** We have very good experiences with local companies. For the TENT A project we cooperate closely with Rudnap / Minel Kotlogradnja. Also for non-Serbian projects, HPE is subcontracting Serbian companies.

For sure, all details of latest technologies might not be available at the moment, but we have no doubts that new energy projects in Serbia will also be beneficial for our local partners, especially as according to our experience there also exists a very good technical background.

**Serbia-energy.com:** New power generation projects that were announced, Kolubara B and TENT B3, does HPE has plans to be involved in realization of this projects? Does HPE has strategic business plans to expand its presence in Serbian market and maybe use it as hub for South East Europe power gen markets which are obviously on the modernization path of its facilities?

**HPE:** Yes of course, however HPE only is focusing on complete new installation like TENT B3, where we already have suitable concept available based on latest technology implemented in Germany, which will go into operation by end of this year.

We are closely working together with our general representative for the Balkan (Ex-Yugoslavia), which is ACTIV Project Management GmbH - Graz, Austria. They have opened a local office in Belgrade in Spring 2011.

South Eastern Europe we also see on the modernization track, however as always - financial

sources are required first, which is quite a challenge in these days.

**Serbia-energy.com:** From your perspective and experience, would you like to tell us your overall opinion on Energy sector in Serbia focusing on restructuring and sector competitiveness improvement initiatives and in what aspect will this influence HPE presence in Serbia?

**HPE:** The energy sector in Serbia has made good progress in upgrading its assets and we expect further projects for improving efficiency and emissions in the Serbian Power Plants. What we appreciate is a “coal friendly” environment in the country, therefore HPE sees good potential for further common contracts for the benefit of environmental friendly power production in Serbia.